### **Manufacturing Industries Solutions**

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Multiple choice questions

- (i) Which one of the following industries uses limestone as a raw material.
- (a) Aluminum (b) Cement (c) Sugar (d) Jute
- ► (b) Cement
- (ii) Which one of the following agencies markets steel for the public sector plants? (a) HAIL (b) SAIL (c) TATA Steel (d) MNCC
- ► (b) SAIL
- (iii) Which one of the following industries uses bauxite as a raw material? (a) Aluminium (b) Cement (c) Jute (d) Steel
- ► (a) Aluminium
- (iv) Which one of the following industries manufactures telephones, computer, etc? (a) Steel (b) Electronic (c)

**Aluminium** 

- (d) Information Technology
- ► (b) Electronic

Answer the following briefly in not more than 30 words.

- (i) What is manufacturing?
- (ii) Name any three physical factors for the location of the industry.
- (iii) Name any three human factors for the location of an industry.
- (iv) What are basic industries? Give an example.

(v)	Name the important raw materials used in the manufacturing of cement?
Ans	wer
(i)	Manufacturing is the process in which goods are produced after processing the various raw materials.
(ii)	Three physical factors for the location of the industry are:
$\rightarrow$ A	vailability of raw material.
→ Suitable climate.	
$\rightarrow$ A	wailability of water and power supply.

(iii) Three human factors for the location of an industry are
→ Availability of cheap labour
→ Availability of services such as consultants and financial advice
→ Availability of Market
(iv) Basic industries are those which supply their raw materials to industries which manufacture other goods. An example is the iron and steel industry which supplies steel to the automobile industry.
(v) The important raw materials used in the manufacturing of cement are: limestone, silica, alumina and gypsum.

3. Write the answers of the following questions in 120 words. (i) How are integrated steel plants different from mini steel plants? What problems does the industry face? What recent developments have led to a rise in the production capacity? (ii) How do industries pollute the environment? (iii) Discuss the steps to be taken to minimise environmental degradation by industry?

#### Answer

(i) Integrated Steel Plants are large plants which handle everything in one complex – from putting together raw material to steel making, rolling and shaping.

Mini Steel Plants are smaller, have electric arc furnaces, use mainly steel scrap and sponge iron as inputs. They have rerollers that use steel ingots as well. They produce mild and alloy steel of given specifications.

#### Problems of Steel Industry:

- → High costs and limited availability of coking coal.
- $\rightarrow$  Lower productivity of labour.
- $\rightarrow$  Irregular supply of power.  $\rightarrow$  Poor infrastructure.

Following are some recent developments that have led to a rise in the production capacity: → Liberalisation

- → Foreign direct investments (FDI) with the efforts of private entrepreneurs.
- → Improvement in production process by the use of newer technologies.
- (ii) Industries are responsible for four types of pollution air, water, land, and noise pollution. Following are the various reasons:

- → Air pollution is caused by the presence of high proportion of undesirable gases, such as sulphur dioxide and carbon monoxide.
- ightarrow Water pollution is caused by organic and inorganic industrial wastes and effluents discharged into rivers.
- → Thermal pollution of water occurs when hot water from factories and thermal plants are drained into rivers and ponds before cooling.
- → Wastes from nuclear plants cause cancer, birth defects and miscarriages.
- → Dumping of wastes especially, glass, harmful chemicals, industrial effluents, packaging, salts and other garbage render the soil useless.
- → Noise pollution is caused due to industrial and construction activities, factory equipment, generators, electric saws, drills and other machineries.

  (iii) The steps to be taken to minimize environmental degradation by industrial degradation by industrial degradation.
- (iii) The steps to be taken to minimize environmental degradation by industry are:
- → To control water pollution, industrial effluents need to be treated on all three levels (primary, secondary and tertiary); the use of water for processing should be minimised via reuse and recycling; rainwater can be harvested to meet water requirements, and ground water usage should be regulated by law.
- → For the minimisation of air pollution, smoke stacks should be fitted to factories with electrostatic precipitators, fabric filters, scrubbers and inertial separators. Also, smoke can be reduced by using oil or gas instead of coal.
- → Noise pollution can be controlled by fitting generators with silencers, redesigning machinery to reduce noise, and using earplugs and earphones besides other noise absorbing material.